



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

Site: Moline Creek
ID # MOD980631162
Break: 2.6
Other: 9-10-92

MEMORANDUM

DATE: September 10, 1992

SUBJ: Action Memorandum for the Raymark Industries, Inc. Site, Stratford, Fairfield County, Connecticut. Request for Contingency Funds to Allow Transition from Enforcement-lead to Fund-lead Removal Action.

FROM: Arthur K. Wing, On-Scene Coordinator
Site Evaluation and Response Section II,
Environmental Services Division

Michael C. Hill, RCRA Facility Manager
Connecticut Waste Regulation Section
Waste Management Division

THRU: Edward J. Conley, Director
Environmental Services Division

Merrill S. Hohman, Director
Waste Management Division

TO: Julie Belaga, Regional Administrator

I. PURPOSE

Authorization is hereby requested for \$1,961,250 to commence a time-critical Removal Action at the Raymark Industries, Inc. Site (the "Site"), on 75 East Main Street in Stratford, Fairfield County, Connecticut, 06497. These funds will only be utilized in the event Raymark Industries, Inc. ("Raymark"), fails to perform work required under an EPA Administrative Order issued pursuant to Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act, as amended ("CERCLA"), 42 U.S.C. § 9606, Docket number I-92-1072 (the "Order").

This action will ensure that EPA can provide a timely response to effectively minimize and/or mitigate danger to the public health or welfare or the environment which may result from a release or threat of release of hazardous substances at the Site. Such danger could be caused by direct contact followed by the ingestion of the organic, metal, and asbestos contaminated soils and surficial friable asbestos-containing materials ("ACM") disposed of at the Site. A second route of exposure to local populations could be the inhalation of contaminated dusts from the Site.



07KF

0400

2.0

The Removal Actions described herein are intended to eliminate the actual or potential exposure to nearby human populations, and to eliminate the potential for migration of contamination present in, the surface and near-surface soils.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

CERCLIS ID #: CT D001186618

Site ID #: H2

Category: Time Critical

1. Removal site evaluation

The Site was used for the manufacture of brake linings, clutch parts and other automotive asbestos based products at Raymark's Stratford facility from 1919 through 1989. According to Raymark Industries, Inc., lagoon areas located on Site were used to dispose of asbestos waste and other manufacturing waste streams.

The Connecticut Department of Environmental Protection ("DEP") and EPA have taken a series of administrative actions to require Raymark to close all surface impoundments, to update asbestos and hazardous waste handling procedures and to bring groundwater monitoring well networks into compliance with applicable Resource Conservation and Recovery Act ("RCRA") regulations, both Federal and State.

The EPA Environmental Services Division ("ESD") Ambient Air and Emissions Monitoring Section conducted an investigation of suspected airborne organic compounds and asbestos in the vicinity of Raymark on June 26, 1984. Levels of toluene were detected 200-400 yards away (downwind). An air monitoring station for asbestos was located in a shopping mall to the north of the facility and no asbestos was detected.

The Superfund Removal Program conducted a Site Assessment on August 28, 1991 and September 13, 1991 and collected additional soil and water samples for volatile organic compounds ("VOC"), base/neutral and acid-extractable compounds ("BNA"), polychlorinated biphenyls ("PCBs"), pesticides, asbestos, and metals analyses.

Contaminants that have been identified include asbestos, heavy metals and organics, including PCBs. Analysis of the soil samples collected on August 28, 1991 indicated elevated levels of asbestos, lead, copper, zinc, and nickel in the waste lagoon areas. Elevated levels of PCBs were also recorded in the lagoon areas and in an isolated spot on the west side of the facility near the rail lines.

Currently there are four (4) waste lagoons, in an approximately four (4) acre area where organic, heavy metal, and asbestos contamination has been identified.

2. Physical location

The Raymark Site is approximately 33 acres in an urban/industrial setting. The property is located at 75 East Main Street, Stratford, Connecticut. The geographic coordinates for the Site are as follows:

41° 15' 29" Latitude, and
73° 07' 30" Longitude.

The Site is identified on Town of Stratford Tax Maps F-12 and G-12. The Site is bounded to the west by a Metro North rail line (rail bed currently owned by CT DOT) which separates the Site from the Raybestos Memorial Field Superfund Site, to the north by East Main Street (beyond which is "The Dock" shopping mall), to the east by East Main Street and south by the Ferry Boulevard and the Barnum Avenue Cut Off of Interstate 95. Beyond the lagoon areas are Ferry Boulevard and Barnum Avenue. Directly east and south of these roads are U.S. Route One and Interstate 95.

3. Site characteristics

The Raymark facility consists of several production buildings (approximately 500,000 square feet) and four (4) lagoons. The southern most building is currently leased to Pirotti and Sons, a waste hauler, and appears to be used as a solid waste transfer station.

The majority of production buildings occupy the north west corner of the Site. Much of the open area to the south and east of the facility is paved and was used as a parking lot. East of the parking lot are areas, adjacent to Barnum Avenue, covered with piles of construction/residential debris and solid waste. The hazardous waste lagoons are located on the extreme southern end of the property.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

The following is a partial list of hazardous substances, as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), identified in the near surface soils at the Site as a result of EPA's investigations.

<u>Contaminant</u>	<u>Concentration</u> (parts per million)
Friable Asbestos	75 % ¹
Lead	7,000
Copper	3,000
Zinc	1,000
Nickel	500
PCB (Aroclor 1242)	9,200
PCB (Aroclor 1260)	170

Currently, there is no information on the quantity of material disposed of at the Site; however, due to the length of time the Site was used, the quantity of material that may have been disposed is substantial.

The hazardous substances identified in the soils, waste pile, and lagoons can migrate from the Site into the air, groundwater and/or surface water. The groundwater in the Stratford area is considered low quality as a result of contamination from industrial sources and is not known to be used for any drinking purposes. The surface water runoff, however, could result in the transport and deposition of surficial contamination off-site.

Potentially the most significant route of contaminant migration from the Site is surficial soil/dust blowing off-site. The dusts could be inhaled, possibly exposing the nearby populations to asbestos fibers and other contaminants.

An additional potential route of exposure is direct contact with the contaminated soils on the Site followed by inhalation/ingestion. Contaminated soil is also being stored on Site as a result of a 1984 underground toluene storage tank removal. As of September 1991, when the Removal Program Site Assessment was conducted, there were limited Site control measures in place. Although there was perimeter fencing, uncontrolled access to the Site was

¹ Percent by volume of soil sample analyzed.

still possible through various openings in the fence from East Main Street, Ferry Boulevard, and Barnum Avenue. In addition, portions of the perimeter fence were also damaged and could be easily breached allowing access to the facility.

In some areas surrounding the lagoons, the fencing is damaged or not in place. Gates to the lagoons are often open providing direct access to the lagoons. Historically, EPA has found bicycle tracks around the lagoon area of the Site. With residential populations near the Site, there is a fairly high potential for direct contact with contaminated soil or asbestos-containing materials. In addition to the residential population, employees of the leased space on the Site (currently used as a commercial transfer station) have daily access to the facility and therefore are potentially in direct contact with contaminated soil or asbestos-containing materials.

Many of the buildings on the Site which house hazardous substances are dilapidated, and contain numerous unsecured building openings (doors, windows, holes and cracks) which increase the risk of "release and exposure of hazardous substances to nearby human populations and the environment. Evidence of children playing and being exposed to hazardous substances in these run-down buildings is illustrated by the abundant graffiti on the inside walls of the buildings.

There are four (4) 100,000 gallon tanks containing asbestos slurry and phenol located above ground at the Site. The integrity of these tanks is unknown. Therefore there exists a threat of a release of hazardous substances, and a potential threat to human health and the environment.

5. NPL Status

The Site has not received a Hazardous Ranking System ("HRS") ranking and is not proposed as an NPL Site. The property is currently being evaluated by the EPA Superfund Support Section (i.e., preremedial site assessment group).

6. Maps, pictures, and other graphic representations

- a. The Removal Program Preliminary Site Assessment for the Stratford Asbestos Sites Stratford, Connecticut, dated February 1989.
- b. The Supplemental Site Investigation for Raymark Facility Site in Stratford, Connecticut, dated October 1991.

- c. The Resource Conservation and Recovery Act (RCRA) § 3013 Detailed Work Plan Under EPA Order 87-1057 Requiring a Sampling, Analyses, and Reporting for Determination of the Presence or Release of Hazardous Waste at Raymark Industries, Stratford Connecticut, dated March 15, 1991.

B. Other Actions To Date

1. Previous actions

Raymark Industries, Inc. has removed several underground storage tanks, numerous drums of hazardous waste, and consolidated several thousand 1.5 cubic yard bags of asbestos waste some of which are lead-contaminated, in a couple of centralized locations. Contaminated soil is also being stored on Site as a result of a 1984 underground storage tank removal. Raymark removed the tank after finding it was leaking toluene.

In 1986 the United States filed a judicial complaint under the Clean Air Act against Raymark for civil penalties and injunctive relief for numerous violations of the National Emission Standard For Asbestos. The case was settled for \$135,000.

2. Current Actions

EPA issued an administrative order to Raymark under the authority of Section 3013 of RCRA, 42 U.S.C. § 6934, on March 31, 1987 to investigate and delineate the nature, rate, and extent of contamination on- and off-site. Raymark has commenced some of the work on-site, but not according to the EPA approved schedule.

On July 31, 1991, the United States filed a civil action ("Complaint") in the federal district court of Connecticut against Raymark to enforce both the RCRA regulations, and two previous administrative consent agreements entered into in 1985 and 1988 between EPA and Raymark. The Complaint also requests that the Court order Raymark to comply and implement an investigation ordered by the EPA in the 1987 RCRA Section 3013 Order described in the preceding paragraph and incorporate the findings of the investigation into a plan for cleaning up the Site.

The complaint also requests that Raymark submit and implement plans to properly close their regulated hazardous waste management areas, remove all hazardous waste, and comply with the groundwater monitoring assessment program.

a. Bankruptcy Proceedings

Raymark Industries, Inc. is currently involved in involuntary Chapter 11 bankruptcy proceedings. The Court has denied Raymark's motion to dismiss the involuntary bankruptcy action.

The Department of Justice ("DOJ") on behalf of EPA filed a Proof of Claim against Raymark in the U.S. Bankruptcy Court in November, 1990 for \$12,075,000.

C. State and Local Authorities' Roles

1. State and local actions to date

The DEP issued an administrative order in 1983. The order required Raymark to update their hazardous waste handling procedures and to bring the groundwater monitoring well network into compliance. Raymark did not comply with DEP's order, and DEP subsequently requested EPA to take action at the Site.

2. Potential for continued State/local response

There are no resources available at the State or local level to address the Site.

If the Site reverts from enforcement- to Fund-lead at some time during the project, EPA will assess the availability of State and local resources to perform the cleanup. Should resources not be available from these sources, EPA shall access the contingency funds authorized by this Action Memorandum to perform the work.

In addition, whether the Site is enforcement- or Fund-lead, the action will result in a waste-in-place solution. Consequently periodic post-removal inspections will be needed to ensure that the integrity of any fence or cover/cap is maintained.

If the project reverts to a Fund-lead action, the Town of Stratford has agreed to conduct the inspections.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Conditions presently exist at the Site which, if not addressed by implementing the Removal Actions documented in this Action Memorandum, or an equally protective action implemented by Raymark, may present an imminent and substantial endangerment to the public health or welfare or the environment.

A. Threats to Public Health or Welfare

The potential exists for exposure to hazardous substances by nearby populations, both on- and off-site. High concentrations of heavy metals, asbestos and organic contamination have been identified in surface and near surface soils, tanks, sumps, drums and buildings as noted above in Paragraph II.A.4.

The primary route of exposure is through the inhalation of airborne dusts. Other potential routes of exposure result from direct contact with contaminated soils followed by inhalation or ingestion.

Toxicological/health impact information about some contaminants identified in Section II. A. above is provided in Appendix A of this memorandum.

In February 1992, ATSDR reviewed the data gathered in the Supplemental Site Investigation For Raymark, dated October 1991. On March 6, 1992, ATSDR determined that "the Site remains a potential health threat via inhalation, dermal contact, and ingestion." The major hazardous substances, pollutants and/or contaminants that are being released or for which there is threat of release includes: asbestos-containing soil, water, and air, including tanks of asbestos slurry and lagoons containing sludge; lead, copper and nickel found in the soil and water; as well as PCBs, Toluene, 4-Methyl-2-Pentanone, Ethylbenzene, 1,1-Dichloroethane, Carbonyl Disulfide, and 1,1,1-Trichloroethane, all of which are found in the soil or water, or both.

B. Quantities and Types of Substances Present

Insufficient historical data exists to provide an accurate estimate of the volume of hazardous substances and contaminated soil present on Site. Lagoons at the Site were used for disposal of a variety of industrial waste streams generated by Raymark.

From 1919 to July, 1984, the Respondent utilized a system of lagoons, known as a "wet" dust collection system, to attempt to capture the waste lead and asbestos dust produced by its manufacturing process. These lagoons formed a cascading treatment system. Wastewater was initially pumped to two (2) primary lagoons where solids settled out. Overflow was collected in a third lagoon for further settling of solids. Final settling of solids occurred in a fourth lagoon which then discharged its wastewater via a 2000 foot culvert to Ferry Creek. Liquids and materials in the fourth lagoon were intended to be free of suspended asbestos and lead-asbestos solids; however, the fourth

lagoon was dredged many times, indicating that the system was not completely effective in settling solids.

Over this sixty-five (65) year period, the lagoon systems were located all over the western and central areas of the facility. As the lagoons filled with sludge, they were covered with asphalt and often built upon. A new set of lagoons would then be excavated and filled.

Currently, only the last series of four (4) lagoons are still visible. Lagoons 1 and 2 are now dry, except during periods of rainfall. The decayed remains of one (1) 55 gallon drum is visible in Lagoon 3. The base of this lagoon is below the water table elevation and therefore contains liquid. There is evidence of stressed vegetation in this lagoon and surrounding area. Lagoon 4 still serves as a collection basin and final discharge point for the facility's yard drain system and is always filled with liquid. Asbestos-laden waste paper (friction paper) and brake pads have been observed partially buried along all sides of Lagoon 4 by EPA personnel during various site inspections conducted up until and including the most recent EPA site inspection on June 23, 1992.

The drum storage area (which Raymark used to store hazardous waste containers for greater than 90 days) is constructed in two (2) sections. The section used to store liquid hazardous wastes is constructed with a bermed cement base. The section used to store non-liquid hazardous wastes is constructed with an asphalt base. The entire area is equipped with a corrugated metal roof, a chain link fence, a sprinkler system, and a sump. This area has been used to store waste solvents such as toluene, as well as ignitable oils and corrosive resins.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the Removal Action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Description of proposed action(s)

If at any time Raymark fails to comply with the CERCLA § 106 administrative order, the OSC may access the contingency funds requested in this Action Memorandum to perform any work that Raymark has failed to complete, or correct work that was inadequately completed.

The following is a brief description of the planned activities:

- Secure buildings and the site perimeter to minimize unauthorized access;
- Place a cover over Lagoons 1, 2, and 3 and around the perimeter of Lagoon 4 to reduce risks associated with exposure to asbestos, metals, and organic solvents;
- Identify, characterize, and assess the integrity and contents of tanks (above and underground), sumps, and drums and remove appropriate materials to reduce risks to human health and the environment;
- Remove for off-site disposal and/or treatment the approximately 400 cubic yard pile of solvent and lead contaminated soil generated as a result of the prior excavation of a leaking underground storage tank. The soil will be sent to an off-site facility in compliance with applicable federal and state laws and regulations, pursuant to Section 121(d)(3) of CERCLA, 42 U.S.C. § 6921(d)(3); and
- Assess potential off-site migration of contaminants and implement measures necessary to mitigate those releases consistent with Removal Action criteria, 40 C.F.R. § 300.415.

Work shall be performed in accordance with occupational health and safety standards as specified in 29 C.F.R. § 1910.120 and in asbestos specific work practices described in 29 C.F.R. § 1926.58. In addition, work standards that can be adapted to outdoor cleanups from Asbestos Hazard Emergency Response Act ("AHERA") found in 40 C.F.R. Part 763 shall be used.

Since the Removal Action involves capping of the lagoons (i.e., contamination remaining at the Site), the Agency will determine what institutional controls, such as a deed restriction designed to prevent usage of the property which would disturb a cap, will be required.

2. Discussion of how the Removal Action contributes to the performance of remedial activities at the Site

There is currently no long-term (remedial) cleanup plan for the Site. As discussed above, the Site is being evaluated under the HRS scoring process. The Removal Action proposed in this Action Memorandum is designed to provide, to the extent attainable, a protective action which will mitigate near term human health threats posed by the Site.

3. Project schedule

The anticipated duration of the complete project is approximately one year. Should the contaminant migration assessment result in identifying Removal Actions necessary to mitigate further off-site releases, the project may be extended.

It is very difficult to estimate the duration of the project should it revert to a Fund-lead action. The duration of EPA funded work will be determined by the phases of work completed by Raymark prior to the Agency take over.

4. Compliance with Applicable or Relevant and Appropriate Requirements ("ARARs")

Pursuant to 40 C.F.R. § 300.415(i), the following statutes and regulations are Federal and State ARARs for the Site which will be attained to the extent practicable, considering the urgency of the situation and the scope of the Removal Action to be taken:

FEDERAL ARARs

CLEAN AIR ACT

CAA National Emission Standards for Hazardous Air Pollutants ("NESHAPs") for Asbestos, 40 C.F.R. Part 61: Subpart M includes standards for waste handling, transport and inactive landfill capping.

CLEAN WATER ACT

Potential migration of hazardous waste into wetlands or surface water has yet to be determined. This analysis is part of the Removal Action. Federal ARARs for these activities will be developed as necessary.

RESOURCE CONSERVATION AND RECOVERY ACT

RCRA Subtitle C: requirements for generation, treatment, storage and disposal of hazardous waste under interim status.

TOXIC SUBSTANCES CONTROL ACT

Disposal of PCBs (40 C.F.R. § 761): If the remedy involves excavation of soils that contain PCBs, the requirements of this section must be satisfied. However, the section does not explicitly require excavation of PCB-containing soil.

STATE ARARs

Air Pollution, Control of Particulate, Regulations of Connecticut State Agencies (RCSA) Section 22a-174-18.

Hazardous Waste Management, RCSA Sections 22a-449(c)-1 through 22a-449(c)-43: includes regulations for manifesting, transport, requirements for hazardous waste generators and interim status standards for hazardous waste facilities.

The following were identified as requirements to be considered ("TBC") for the Site:

- 1) TSCA PCB Spill Cleanup Policy (40 C.F.R. § 761): requirements for cleanup of PCB-contaminated soil in a residential area.
- 2) Guidance on Remedial Actions for Superfund Sites with PCB Contamination (EPA/540/G-90/007; August 1990). While this guidance applies to CERCLA remedial actions, certain portions may have application to the Removal Action at this Site.

Additional ARARs may be identified as the Removal Action progresses.

B. Estimated Costs

This estimate assumes that all Removal Actions required under the CERCLA § 106 Order shall be performed by EPA.

<u>Extramural Costs:</u>	<u>Proposed Ceiling</u>
ERCS Costs	\$1,380,000
Army Corps of Engineers	
Design Costs	20,000
TAT Costs	<u>55,000</u>
Subtotal Extramural Costs	1,455,000
<u>Intramural Costs:</u>	
(Including Indirect Costs)	114,000
<u>Total Project Cost:</u>	
Subtotal Intramural and	
Extramural Costs	\$1,569,000
Project Contingency	
(25% of all costs above)	<u>392,250</u>
	=====
Total Project Costs	\$1,961,250

VI. EXPECTED CHANGE IN SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delayed action will result in a continuing risk to the public health or welfare. Failure to implement the Removal Action will result in further erosion of the existing lagoon areas, increasing the potential for direct contact with and inhalation of contaminants in surface and near surface soils. An additional potential route of exposure is direct contact with the contaminated soils on the Site as well as inhalation and ingestion. Further, many of the buildings on-site which house hazardous substances are dilapidated, therefore increasing the risk of release and exposure of hazardous substances to nearby human populations and the environment. Delayed action will result in continued unauthorized pedestrian access onto or through the Site, as well as continued access into numerous open, unlocked points of entry (windows and doorways) into the buildings. Failure to remove the waste pile within a timely manner will result in continued risk of exposure of hazardous substances to humans. Failure to determine the integrity of the four (4) 100,000 gallon tanks containing asbestos slurry and phenol increases the risk of release and exposure of hazardous substances to nearby human populations and the environment.

VII. OUTSTANDING POLICY ISSUES

None

VIII. ENFORCEMENT

See Appendix B. Appendix B is enforcement confidential and therefore not a part of the Administrative Record.

IX. RECOMMENDATION

This decision represents the selected Removal Action for the Raymark Industries, Inc. Site in Stratford, Connecticut, developed in accordance with CERCLA as amended, and is not inconsistent with the National Contingency Plan ("NCP"), 40 C.F.R. Part 300. This decision is based on the Administrative Record for the Site.

Conditions at the Site meet the NCP criteria for a removal in that there are:

"Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;" [40 C.F.R. § 300.415(b)(2)(i)].

"High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;" [40 C.F.R. § 300.415(b)(2)(iv)].

"Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;" [40 C.F.R. § 300.415(b)(2)(v)].

To mitigate the continuing threats posed to the public health and welfare, I recommend your approval of the proposed Removal Action. The estimated total project cost is \$1,961,250 of which \$1,725,000 are for extramural design and cleanup contractor costs. The additional funds will be used to perform work should Raymark fail to comply with the CERCLA § 106 Order. You may indicate your approval or disapproval by signing below.

Approve: Julie Belofa Date: Sept. 11, 1982

Disapprove: _____ Date: _____

Appendix A

The potential impacts of asbestos exposure are chronic in nature and may not manifest themselves for a number of years after initial exposure. Diseases that are linked to asbestos include asbestosis, a chronic lung inflammation, and a variety of cancers which vary in their prognoses. The most deadly cancer which is linked to inhalation of asbestos is mesothelioma, a disease which results in the destruction of the mesothelium, the lining surrounding various abdominal organs. Mesothelioma is 100% fatal within a period of one to two years of diagnosis.

Samples collected from the Site indicate that there is asbestos in the soils above the 1% action level established by the Agency for Toxic Substances and Disease Registry (ATSDR).

ATSDR has reviewed the asbestos analytical results of EPA's January 1989 soil sampling and determined that "sites that contain friable chrysotile asbestos represent a potential public health threat." (ATSDR - March 6, 1989 - Louise House) "These sites are in need of remedial action to prevent the asbestos materials from becoming airborne." Asbestos is a known carcinogen and the location of this site with respect to businesses, residences and the recreational areas results in a large population being potentially exposed to this material. (A copy of this ATSDR Summary is attached to the Action Memorandum)

The following is an excerpt from a report published by the Agency for Toxic Substance and Disease Registry (ATSDR), U.S. Public Health Service entitled 'Toxicological Profile for Selected PCBs (Aroclor 1260, 1254, 1248, 1242, 1232, 1221, and 1016)':

"(S)ome PCB mixtures produce adverse health effects that include liver damage, skin irritations, reproductive and developmental effects and cancer. Therefore, it is prudent to consider that there may be health hazards for humans. Human studies to date show that irritations, such as acne like lesions and rashes, can occur in PCB-exposed workers. Other studies of people with occupational exposure suggest that PCBs might cause liver cancer. Reproductive and developmental effects may also be related to occupational exposure and eating of contaminated fish. While the role of PCBs in producing cancer, reproductive, and developmental effects cannot be clearly delineated, the suggestive evidence provides an additional basis for public health concern about humans who may be exposed to PCBs."¹

¹ Toxicological Profile for Selected PCBs (Aroclor-1260, -1254, -1248, -1242, -1232, -1016), published by the Agency for Toxic Substance and Disease Registry, U.S. Public Health Service, published, June 1989, pg 2 Section 1.

The following is an excerpt from a report published by ATSDR of the U.S. Public Health Service, describes the potential health impacts of lead:

"(E)xposure to lead is especially dangerous for unborn children because their bodies can be harmed while they are being formed. If a pregnant woman is exposed to lead, it can be carried to the unborn child and cause premature birth, low birth weight, or even abortion. Young children are at risk because they swallow lead when they put toys or objects soiled with lead-contained dirt in their mouths. More of the lead swallowed by children enters their bodies, and they are more sensitive to its effects. For infants, or young children, lead exposure has been shown to decrease intelligence (IQ) scores, slow their growth, and cause hearing problems. These effects can last as children get older and interfere with successful performance in school.

... (B)ecause laboratory animals fed lead in their diet throughout their lives have developed tumors, lead should be thought of as a probable cancer-causing substance in humans.

Exposure to high levels of lead can cause the brain and kidneys of adults and children to be badly damaged. Lead exposure may increase blood pressure in middle-aged men... Lead may affect (a man's) sperm or damage other parts of the male reproductive system."²

² Toxicological Profile for Lead, published by the Agency for Toxic Substances and Disease Registry, U.S. Public Health Service, Department of Health and Human Services, June, 1990, Section 1, pp 2-3.